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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of : Bernd RIEDL et al.

Serial No.: 09/993,647

Group Art Unit: 1624

Filed: November 27, 2001

Examiner: Deepak R. RAO

For:  $\omega$ -CARBOXYARYL SUBSTITUTED DIPHENYL UREAS AS RAF KINASE  
INHIBITORS

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §§ 1.56, 1.97 and 1.98**

Commissioner for Patents  
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Alexandria, VA 22313-1450

Sir:

This information disclosure statement is made in accordance with 37 C.F.R. §§ 1.56, 1.97 and 1.98 as follows:

Timing and Fees

- ☐ Under 37 C.F.R. § 1.97(b), no fee or statement is required for filing this information disclosure statement is filed:
- ☐ within three months of the filing date of a national application other than a CPA under § 1.53(d);
  - ☐ within three months of the actual filing date of the national phase of a PCT application; OR
  - ☐ before the mailing of a first substantive office action (including after filing of an RCE).
- ☒ Under 37 C.F.R. § 1.97(c), this information disclosure statement is filed after the periods specified in 37 C.F.R. § 1.97(b), but before the mailing date of:
- ☒ a final rejection under 37 C.F.R. 1.113;
  - ☒ termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P. § 609(B)(2); OR
  - ☒ a notice of allowance under 37 C.F.R. § 1.311; and

is accompanied by:

- ☐ the statement as specified in 37 C.F.R. § 1.97(e) set out below; OR
  - ☒ a check covering the fee of \$180.00 under 37 C.F.R. § 1.17(p).
- ☐ Under 37 C.F.R. § 1.97(d), this information disclosure statement is filed after the mailing date of the following actions which have not been withdrawn:
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  - ☐ termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P. § 609(B)(2); OR
  - ☐ a notice of allowance under 37 C.F.R. § 1.311;

AND is filed on or before payment of the issue fee; AND is accompanied by:

- ☐ the statement as specified in 37 C.F.R. § 1.97(e) as set forth below, and the fee of \$180.00 under 37 C.F.R. § 1.17(p).

Statements Under 37 C.F.R. 1.97(e)

- ☐ Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application having a mailing date not more than three months prior to the filing date of this information disclosure statement; or
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and to the knowledge of the undersigned attorney after making reasonable inquiry, no item of information contained in this information disclosure statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing date of the information disclosure statement.

Cited Materials

- ☐ Copies of materials listed but not attached were cited in benefit (35 U.S.C. § 120) ancestor application Serial No. \_\_\_\_\_, on Form 892 by the Examiner and/or Form 1449 by the applicant; see 37 C.F.R. § 1.98(d).
- ☒ Copies of materials listed but not attached are on the attached diskette.
- ☒ Copies of the materials listed are attached (except for the foregoing).

Non-English Language References

☐ An English-language search report or equivalent paper from a foreign patent office is provided indicating the relevance of the cited reference(s).

☐ A foreign-language search report from a foreign patent office is provided, and pertinent parts are translated substantively below:

X = document of particular relevance when it is taken alone

Y = document of particular relevance when it is combined with another such document

A = document defining the general state of the art

O = non-written disclosure

P = intercalated document

T = document cited to understand the theory or principle underlying the invention

E = patent document which has the benefit of a date earlier than the filing date and which was published only on or after this filing date

D = cited in the application

L = cited for another reason

& = publication of member of same patent family

☐ Translation of other relevant information on foreign search report

[insert necessary translation here]

Other Information

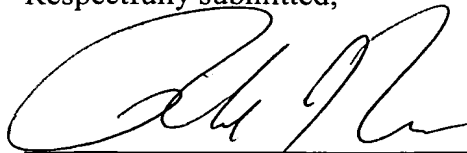
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☒ The Commissioner is hereby authorized to charge or credit any overpayment to Deposit Account #13-3402, two copies of this paper are attached for this purpose.

Respectfully submitted,



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Attorney Docket No.: BAYER-0018-A

Date: May 5, 2004

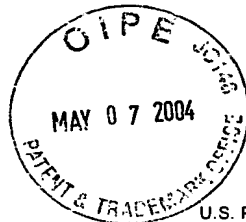
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 18

### Complete if Known

Application Number  
Filing Date  
First Named Inventor  
Group Art Unit  
Examiner Name  
Attorney Docket Number

### U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	AA	502,504	U.S.	Thoms	08-01-1893	
	AF	2,649,476	U.S.	Martin	08-15-1953	
	AH	2,722,544	U.S.	Martin	11-01-1955	
	AK	2,797,214	U.S.	Werner Bossard	06-25-1957	
	BP	4,212,981	U.S.	Yukinaga et al.	07-15-1980	
	BQ	4,240,820	U.S.	Dickore et al.	12-23-1980	
	CV	5,447,957	U.S.	Adams et al.	09-05-1995	
	DH	5,886,044	U.S.	Widdowson et al.	03-23-1999	
	DI	5,891,895	U.S.	Shiraishi et al.	04-06-1999	
	DL	5,965,573	U.S.	Petrie et al.	10-12-1999	
	DM	6,004,965	U.S.	Breu et al.	12-21-1999	
	DN	6,005,008	U.S.	Widdowson et al.	12-21-1999	
	DP	6,020,345	U.S.	Vacher et al.	02-01-2000	
	DR	6,040,339	U.S.	Yoshida et al.	03-21-2000	
	DU	6,093,742	U.S.	Salituro et al.	07-25-2000	
	DV	6,133,319	U.S.	Widdowson	10-17-2000	
	DY	6,150,415	U.S.	Hammock et al.	11-21-2000	
	DZ	6,174,901 B1	U.S.	Mantlo et al.	01-16-2001	
	EA	6,178,399 B1	U.S.	Takebayashi et al.	01-23-2001	
	EB	6,180,675 B1	U.S.	Widdowson et al.	01-30-2001	
	EC	6,187,799 B1	U.S.	Wood et al.	02-13-2001	
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	EE	6,218,539 B1	U.S.	Widdowson	04-17-2001	
	EF	6,242,601 B1	U.S.	Breu et al.	06-05-2001	
	EG	6,262,113 B1	U.S.	Widdowson et al.	07-17-2001	
	EH	6,271,261 B1	U.S.	Widdowson	08-07-2001	
	EI	6,333,341 B1	U.S.	Mantlo et al.	12-25-2001	
	EJ	6,339,045 B1	U.S.	Kanno et al.	01-15-2002	
	EK	6,344,476 B1	U.S.	Ranges et al.	02-05-2002	
	NW	4,546,191	U.S.	Nishiyama et al.	10-08-1985	
	NX	5,710,094	U.S.	Minami et al.	01-20-1998	
	NY	6,380,218	U.S.	Marfat et al.	04-30-2002	

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Sheet 5 of 18

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Application Number  
Filing Date  
First Named Inventor  
Group Art Unit  
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### FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sub>6</sub>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	EM		90/02112	WO	The Nutrasweet Co.	03-08-1990		
	EY		96/10559	WO	Fujis WA Pharmaceutical Co. Ltd.	04-11-1996		
	FD		97/17329	WO	Kirin Beer Kabushiki Kaisha	05-15-1997		
	FF		97/30992	WO	Bristol-Myers Squibb Co.	08-28-1997		
	FK		98/17267	WO	Zymogenetics, Inc.	04-30-1998		
	NZ		98/20868	WO	Picower Institute for Med. Res.	05-22-1998		
	OA		98/45268	WO	Pfizer	10-15-1998		
	OB		02/14311	WO	Anger	02-21-2002		
	OC		02/92576	WO	Boehringer Ingelheim	11-21-02		
	OD		0690344 A1	EP	Konica Corp.	01-03-1996		

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		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	FZ		99/32437	WO	Slovak-Farma A.S.	07-01-1999		
	GG		00/43366	WO	Kirin Beer Kabushiki Kaisha	07-27-2000		
	GQ		0116932 A1	EP	BASF AG	08-29-1984		
	HD		0425443 A1	EP	CIBA-GEIGY AG	05-02-1991		
	HG		0202538 A1	EP	Bayer AG	11-26-1986		
	HH		0860433 A1	EP	Kirin Beer Kabushiki Kaisha	08-26-1998		
	HO		25 01 648 A1	DE	The Dow Chemical Co.	07-24-1975		
	HT		08-301841	JP	Green Cross Corp.	11-19-1996		
	HV		10-306078	JP	Mitsubishi Chemical Corp.	11-17-1998		

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### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	IX	Abstract of EP 0405233A1, Tetsuo Sekiya et al.	
	JR	Grant, A.M. et al.: "Hypotensive thiazidiazoles", J. Med. Chem. (1972), 15(10), pg. 1082-4.	
	JS	Russo, F. et al. "Synthesis of 2,6-substituted derivatives of 5H-1,3,4-thiadiazolo=3,2-al-s triazine-5,7-dione" FARMACO, ED.SCI. (1978), 33(12), 972-83	
	JT	Joseph T. Bruder et al., Journal of Virology, January 1997, "Adenovirus Infection Stimulates the Raf/MAPK Signaling Pathway and Induces Interleukin-8 Expression", May 17, 1996, pgs. 398-404.	
	JU	Foussard-Blanpin, Odette: "Comparative pharmacodynamic study of variously substituted carboxamides of the central nervous system" Ann. Pharm. Fr. (1982), 40 (4), pgs. 339-350.	
	MP	Publication No. US 2001/0011136 A1, Publication Date: August 2, 2001, Riedl et al.	
	MQ	Publication No. US 2001/0016659 A1, Publication Date: August 23, 2001, Riedl et al.	
	MR	Publication No. US 2001/0027202 A1, Publication Date: October 4, 2001, Riedl et al.	
	MS	Publication No. US 2002/0165394 A1, Publication Date: November 7, 2002, Dumas et al.	
	MT	Publication No. US 2002/0042517 A1, Publication Date: April 11, 2002, Uday et al.	
	MU	Publication No. US 2001/0034447 A1, Publication Date: October 25, 2001, Riedl et al.	
	MV	Publication No. US 2001/0011135 A1, Publication Date: August 2, 2001, Riedl et al.	
	MW	Publication No. US 2002/0103253 A1, Publication Date: August 1, 2002, Ranges et al.	

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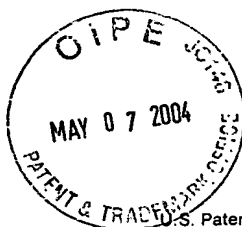
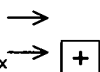
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	MX	Publication No. US 2001/0006975 A1, Publication Date: July 5, 2001, Wood et al.	
	MY	Publication No. US 2002/0062763 A1, Publication Date: May 30, 2002, Macholdt et al.	
	MZ	Publication No. US 2002/0085859 A1, Publication Date: July 4, 2002, Hashimoto et al.	
	NA	Publication No. US 2002/0085857 A1, Publication Date: July 4, 2002, Kim et al.	
	NB	Publication No. US 2002/0137774 A1, Publication Date: September 26, 2002, Riedl et al.	
	NC	Co-pending application Serial No. 09/640,780 filed August 18, 2000.	
	ND	Co-pending application Serial No. 09/472,232 filed December 27, 1999.	
	NE	Co-pending application Serial No. 09/776,936 filed December 22, 1998.	
	NF	Co-pending application Serial No. 09/776,935 filed December 22, 1998.	
	NG	Co-pending application Serial No. 09/993,647 filed November 27, 2001.	
	NH	Co-pending application Serial No. 10/086,417 filed March 4, 2002.	
	NI	Co-pending application Serial No. 10/071,248 filed February 11, 2002.	
	NJ	Co-pending application Serial No. 10/308,187 filed December 3, 2002.	
	NK	Co-pending application Serial No. 10/361,859 filed February 11, 2003.	

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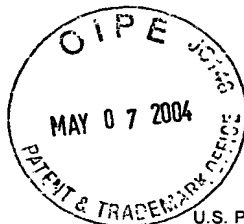
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### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

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	NL	Co-pending application Serial No. 10/361,844 filed February 11, 2003.	
	NM	Co-pending application Serial No. 10/361,850 filed February 11, 2003.	
	NN	Co-pending application Serial No. 10/060,396 filed February 1, 2002.	
	NO	Co-pending application Serial No. 09/458,014 filed December 10, 1999.	
	NP	Co-pending application Serial No. 10/125,369 filed April 19, 2002.	
	NQ	Co-pending application Serial No. 09/889,227 filed July 12, 2001.	
	NR	XP-001145518 # 4956 Potent Raf Kinase Inhibitors from the Diphenylurea Class: Structure Activity Relationships, B. Riedl et al., Bayer Corporation.	
	NS	XP-001145779 "Antitumor Activity of a C-raf Antisense Oligonucleotide in Combination with Standard Chemotherapeutic Agents against Various Human Tumors Transplanted Subcutaneously into Nude Mice", Thomas Geiger et al., Vol. 3, 1179-1185, July 1997.	
	NT	XP-001145481 +2921 Phase I and Pharmacokinetic Study of the Raf Kinase Inhibitor Bay 43-9006 in Patients with Locally Advanced or Metastatic Cancer, Dirk Strumberg et al. Bayer AG.	
	NU	XP-002232130, "A Phase I Trial of H-ras Antisense Oligonucleotide ISIS 2503 Administered as a Continuous Intravenous Infusion in Patients with Advanced Carcinoma", C. Casey Cunningham et al., 2001 American Cancer Society, Volume 92, Number 5, pages 1265-1271.	
	NV	XP-002233466, MEDLINE/NLM, NLM8336809 - [Intra-arterial ACNU, CDDP chemotherapy for brain metastases from lung cancer: comparison of cases with and without intra-arterial mannitol infusion], Iwade Y et al.	
	OE	Journal of Immunological Methods Berwick 1996, vol. 196 (2) 163-173 corresponding to DN 125-245169	

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